

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

### Remarks

Upon entry of the above amendments, this application will contain claims 1-14, 17, and 19-21 pending and under consideration. The application was originally filed with claims 1 through 24. In the present Response, claims 15, 16, 18, and 22-24 have been canceled. Claim 1 has been amended.

### Objections to the Specification

The specification was objected to for failing to refer to the priority applications. The applicants have amended the specification to include a reference to the related international application and the parent British application. The present application claims priority to these applications as noted in the declaration originally filed with the application. Consequently, it is believed that this amendment does not introduce any new matter.

The disclosure was objected to for failing to include a brief description of the drawings. The applicants have submitted with this response a description of the drawings. Support for the description of the drawings can be found in the application as originally filed beginning on page 8, line 23; on page 9, lines 16-22; and on page 10, lines 6-23. It is believed that this amendment does not introduce any new matter.

The application was also objected to for failing to contain an abstract. An abstract has been provided. Support for the abstract can be found on the front or first page of the published international application, WO 00/07786. Consequently, it is believed that this amendment does not introduce any new matter.

### Rejections under 35 USC §102

Claims 1-24 were rejected under 35 USC §102(b) over Shisko (US 5,520,777). Shisko discloses a method of manufacturing fiber board in which a **solution** of maleic acid and glycerol is added to wood chips or other lignocellulosic material prior to digesting (cooking under steam pressure) and refining the wood chips to form fibers. Subsequently, the treated lignocellulosic is mixed with a binding resin such as a phenol formaldehyde resin and then hot-pressed to effect curing. (Shisko, col. 1, lines 34-64.)

In contrast, claim 1, has been amended and recites that that curing is subjected to a binding operation by curing a phenol formaldehyde and maleic anhydride and/or maleic acid

which is added as a solid. Support for amendment can be found in the application on page 6 in the second paragraph. It is respectfully suggested that the invention as presently claimed is patentably distinct from that disclosed in Shisko. Consequently, withdrawal of the rejection of claim 1 and of claims 2-14, 17, and 19-21, which depend either directly or indirectly from claim 1, is respectfully requested.

Claims 1-24 were rejected under 35 USC §102(e) over Symons (US 6,123,795, "Symons '795"). The Symons '795 reference discloses the production of articles such as spirally wound tubes, angles, channels, and/or cones which are prepared from a sheet of lignocellulosic material. The process described in Symons begins with a sheet of lignocellulosic material, which is then impregnated with a solution of an anhydride and a non-aqueous solvent. The sheet is also impregnated with isocyanate thermosetting resin, again, the resin is dissolved in a non-aqueous solvent. (Symons '795, col. 3, lines 21-40, col. 6, lines 26-34, col. 9, lines 1-13.) Consequently, Symons differs from the presently claimed invention by requiring that a sheet of the lignocellulosic material is impregnated with a liquid composition rather than adding the phenol formaldehyde resin and solid maleic acid and/or maleic anhydride to the lignocellulose particles as presently claimed.

Symons '795 also uses a solution of the maleic anhydride in a non-aqueous solvent rather than a solid maleic anhydride or maleic acid as recited in claim 1. Further, Symons '795 does not cure the maleic anhydride in combination with the phenol formaldehyde resin as recited in claim 1. Consequently, it is believed that the invention as recited in claim 1 is patentably distinct over Symons '795. Consequently, withdrawal of the rejections of claim 1, and of claims 2-14, 17, and 19-21, which depend either directly or indirectly from claim 1, is respectfully requested.

Claims 1-24 were rejected under 35 USC §102(b) over Symons (US 6,451,153, "Symons '153"). Symons '153 discloses that the lignocellulosic material is impregnated with a dicarboxylic anhydride, which is **dissolved** in a suitable, non-aqueous solvent. (Symons '153, col. 2, lines 24-29, lines 58-60; col. 3, lines 53-58, col. 5, lines 28-24; col. 9, lines 43-44; and col. 10, lines 35-40.) In contrast and as noted above, the presently claimed invention recites that the maleic anhydride and/or maleic acid is added as a solvent to the lignocellulosic material. Therefore, it is believed that the invention as recited in claim 1 is patentably distinct over Symons '153. Consequently, withdrawal of the rejections of claim 1, and of claims 2-14, 17, and 19-21, which depend either directly or indirectly from claim 1, is requested.

The applicants respectfully request timely examination of this application leading to allowance of all elected claims. The Examiner is invited to contact the undersigned attorney by telephone if there are any questions about this Response or other issues that may be resolved in that fashion.

Respectfully submitted,

By: 

James B. Myers Jr., Reg. No. 42,021  
Woodard, Emhardt, Moriarty, McNett & Henry LLP  
3700 Bank One Center Tower  
111 Monument Circle  
Indianapolis, IN 46204-5137  
(317) 634-3456

Salisbury; USSN 09/762,457  
RESPONSE TO FIRST OFFICE ACTION  
74IN.2 IRM 7726.44